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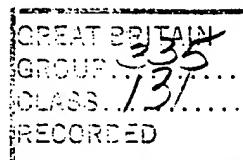
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(19)



(54) IMPROVEMENTS IN OR RELATING TO CIGARETTES

AKIB/

D9459W/15 =GB 1436-073

Self extinguishing cigarette stub - has glowing stub removed and inserted in sleeve around filter tip

AKIBA M 22.09.73-JA-U11307

P15 (19.05.76) *DT2444-929 +A24f-13/18

The cigarette, which may use tobacco or tobacco substitute in the paper-wrapped smoking section, has the filter section disposed in one portion of the extinguishing sleeve the other portion of which receives part of the smoking portion. The sleeve, which may be of aluminium foil, acts to extinguish the cigarette when sufficiently burned away. However, for positively stubbing out the cigarette, the smoking section is pulled out of the sleeve and the burning end re-inserted in the sleeve. The smoking section normally is retained in the sleeve by a weak adhesive layer, and the sleeve is internally coated with an extinguishing material. 23.9.74. as 041292 (4pp)

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the sleeve and
invention will
example with
drawings, in
reference to the accompanying
which:—

Figure 1 is a view showing a cigarette in accordance with this invention,

Figure 2 is a sectional view, to a large size, showing part of a cigarette of Figure 1,

Figure 3 is a view showing another embodiment of a cigarette in accordance with this invention,

Figure 4 is a sectional view, to a larger size, showing part of a cigarette shown in Figure 3,

Figure 5 is a view showing still another embodiment of cigarette in accordance with this invention,

Figure 6 is a sectional view, to a larger size, showing part of a cigarette shown in Figure 5,

Figure 7 is a view showing still another embodiment of cigarette in accordance with this invention,

Figure 8 is a view showing a modification of a cigarette shown in Figure 7, and

Figures 9, 10 and 11 illustrate how a cigarette in accordance with this invention may be extinguished.

Referring now to the accompanying drawings, and first to Figure 1, the cigarette comprises a filter 1 generally of cylindrical shape, a tobacco-stuffed portion 2 having finely-cut tobacco 5 rolled in a hollow cylindrical, cigarette-paper cover 6 open at both ends, and a cylindrical extinguishing sleeve 3.

(71) I, citizen, of Kagoshima-l invention, f 5 be granted i is to be per in and by th This inve Cigarette 10 cigarette stu rooms, corr. the garden: smokers sm smoker has, 15 stamping it on his foot.

This is not, however, always socially acceptable to a smoker who will then experience inconvenience in extinguishing and disposing of the stub. Also, an unextinguished stub can be a cause of fire even when thrown away in outdoor places, and discarded cigarette stubs, extinguished underfoot, litter floors, grounds and other public places necessitating additional labour to keep them clean.

It is an object of this invention to provide a cigarette which is self-extinguishing when fully smoked or self-extinguishable if not fully smoked.

According to this invention, there is provided a cigarette comprising a tobacco-stuffed portion having tobacco contained in a hollow cylindrical cigarette paper tube, a filter, generally of cylindrical shape, provided at one end of said cigarette, a cylindrical extinguishing sleeve having one end portion applied around and adhesively secured to said filter so as to house the filter, and an opposite end portion receiving and releasably holding one end portion of the tobacco-stuffed portion of the cigarette, at least said opposite end portion of the sleeve being formed from or comprising incombustible material or material which is combustible only with difficulty.

A smoker may enjoy a cigarette in

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This extinguishing sleeve 3 may be formed from or comprise thin paper which has been treated to render it incombustible or only combustible with difficulty or again, suitable incombustible material such as aluminium foil, and one end portion of the sleeve 3 fits over and is securely adhered to the circumference of the filter 1 by means of a suitable adhesive agent 4. The other end portion of the sleeve 3 receives one end portion of the tobacco-stuffed portion 2. The inner surface of the sleeve 3 contacting the paper cover 6 of the portion 2 is free from the adhesive agent 4 and the portion 2 is retained releasably within the sleeve 3 by its paper cover 6 so that the portion 2 may be pulled out of the sleeve 3 if desired. The sleeve 3 may have an extinguishing layer 7 of a suitable material on the inner surface of its end portion which receives the tobacco-stuffed portion to ensure extinction of the cigarette when the lighted end of the cigarette is inserted into the sleeve 3.

The inner surface of the end portion of the sleeve 3 which receives the portion 2 is further provided with a layer 8 of adhesive material which is initially inactive but which is heat sensitive such as to be rendered adhesive by the heat of the lighted end of the portion 2 of the cigarette when it is thrust into the sleeve 3 to extinguish the lighted end in the sleeve. Said other end portion of the sleeve 3 has adhesively connected to its marginal edge remote from the filter 1 a thin expandable ring member 9 of a material which has a coefficient of thermal expansion greater than that of the sleeve 3. The member 9 is expanded by the heat of the lighted end and serves to facilitate the insertion of the lighted end into the sleeve 3.

In the modification shown in Figures 3 and 4, the inner surface of the end portion of the sleeve 3 which receives the portion 2 is coated with an incombustible, non-adherable film layer of aluminium foil or glass fibre for example. An adhesive layer, non-adherable with the film layer, extends over the entire inner surface of the sleeve 3 including the film layer, the adhesive layer adhesively bonding the sleeve to the filter 1. The adhesive deposited on the circumferential surface of the tobacco-stuffed portion forms thereon a layer 4 of transferred adhesive, but adhesive bondage between the sleeve 3 and the paper cover 6 is prevented by the film layer. Thus, the sleeve 3 releasably holds the portion 2 so that the portion 2 may be pulled out of the sleeve as before.

In the embodiment of Figures 5 and 6, adhesive is applied to the inner surface of the sleeve 3 only in the area of the filter 1 and in a narrow strip 4" around the marginal edge of the sleeve 3 remote from the filter, as indicated by the cross hatching. The sleeve 3, in this case, has a ring of perforations adjacent the adhesive strip 4" which normally retains the portion 2 in the sleeve 3 by adhesive bondage or by friction, the perforations, nevertheless allowing the portion 2 to be easily separated from the sleeve

3 along the line of the perforations when it is desired to insert the lighted end of the portion 2 into the sleeve 3 to extinguish it.

In Figure 7, the marginal edge portion of the cigarette paper cover on the portion 2 within the sleeve 3 is coated or soaked with an adhesion weakening agent such as a silicone or Teflon (Registered Trademark) indicated at 10 by cross hatched lines. In this case, an adhesive layer extends over the entire inner surface of the sleeve 3 to unite the sleeve with the filter 1 and the sleeve is as described with reference to Figure 1.

Figure 8 illustrates a modification of the Figure 7 embodiment in which the adhesion weakening agent is coated onto the inner surface of the sleeve 3 locally, as at 11, instead of being coated onto the portion 2, the coating 11 being co-extensive with the marginal edge portion of the cigarette paper cover received within the sleeve 3. In this case, of course, the adhesive layer is supplied inside the coating 11.

Figure 9 illustrates a smoked and still lighted stub portion 2 being drawn out of the sleeve 3.

Figure 10 illustrates the insertion of the lighted end of the stub into the sleeve 3 to extinguish itself, and Figure 11 illustrates the cigarette after it has been extinguished with the ash captured inside the sleeve 3 to prevent it being scattered about.

Should a smoker desire to taste the cigarette without the filter 1 the portion 2 may be drawn out of the sleeve 3 or separated from the latter along the line of perforations before it is lit. After smoking, the lighted end of the stub may be inserted into the sleeve to extinguish the stub, the sleeve having been retained separately by the smoker in his pocket or in the cigarette packet.

The filter 1 has been described and shown as being of the single filter type in the foregoing embodiments. It will be appreciated however that the filter may take any known or convenient form and may comprise, for example, a number of filter discs of acetate or active carbon arranged one behind the other.

In this specification and in the following claims the word "cigarette" is to be taken to mean any tobacco-stuffed tube which is intended to be smoked in the manner of a cigarette, and the word "tobacco" is to be taken to include artificial tobacco and any other burnable material which is intended to be smoked in the manner of tobacco.

WHAT I CLAIM IS:-

1. A cigarette comprising a tobacco-stuffed portion having tobacco contained in a hollow cylindrical cigarette paper tube, a filter, generally of cylindrical shape, provided at one end of said cigarette, a cylindrical extinguishing sleeve having one end portion applied around and adhesively secured to said filter so as to house the filter, and an opposite end portion receiving and releasably holding one end portion of the tobacco-stuffed portion of the

cigarette, at least said opposite end portion of the sleeve being formed from or comprising incombustible material or material which is combustible only with difficulty.

5 2. A cigarette as claimed in Claim 1 wherein the sleeve has an extinguishing layer of incombustible or substantially incombustible material on the inner surface of its said opposite end portion.

10 3. A cigarette as claimed in Claim 1 or 2 wherein the inner surface of said opposite end portion of said sleeve is provided with a layer of adhesive material, heat sensitive such as to be rendered adhesive by the heat of the lighted end of the cigarette thrust into said opposite end portion of said sleeve.

15 4. A cigarette as claimed in any preceding Claim wherein said opposite end portion of said sleeve has adhesively connected to its marginal edge remote from said filter, an expandable ring member of a material having a coefficient of thermal expansion greater than that of said opposite end portion of said sleeve.

20 5. A cigarette as claimed in any preceding Claim wherein the inner surface of said opposite end portion of said sleeve is coated with a layer of adhesive which is non-adherent thereto but which is adherent to the cigarette paper tube of said tobacco-stuffed portion of the cigarette.

25 6. A cigarette as claimed in Claim 1, 2 or 3

wherein the inner surface of said opposite end portion of said sleeve has a strip of adhesive around the marginal edge of the sleeve remote from the filter and a ring of perforations 35 adjacent said adhesive strip.

7. A cigarette as claimed in Claim 1, 2 or 3 wherein the marginal edge portion of said cigarette paper tube within said opposite end portion of said sleeve is coated or soaked with 40 an adhesion weakening agent, and the inner surface of said sleeve is coated with an adhesive layer extending over the entire inner surface of the sleeve, said adhesive layer uniting said filter with said sleeve.

45 8. A cigarette as claimed in Claim 7 modified in that the adhesion weakening agent is coated onto the inner surface of said sleeve, under the adhesive layer over an area co-extensive with said marginal edge portion of 50 said cigarette paper tube.

9. A cigarette substantially as hereinbefore described with reference to Figures 1 and 2 or Figures 3 and 4 or Figures 5 and 6 or Figure 7 or Figure 8 of the accompanying drawings.

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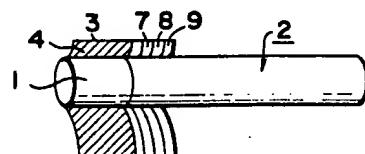
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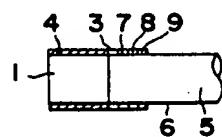
1 SHEET

*This drawing is a reproduction of
the Original on a reduced scale*

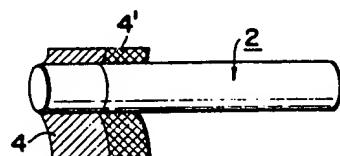
F I G. 1



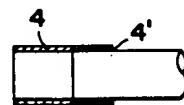
F I G. 2



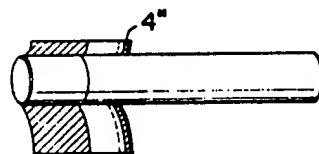
F I G. 3



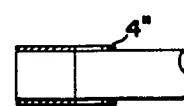
F I G. 4



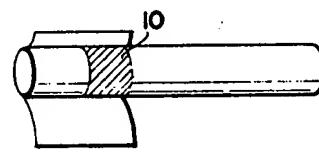
F I G. 5



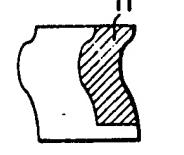
F I G. 6



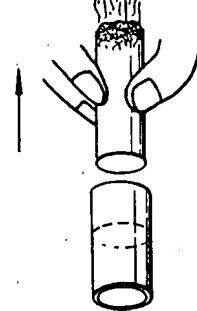
F I G. 7



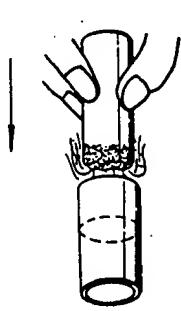
F I G. 8



F I G. 9



F I G. 10



F I G. 11

